The Three Arms Combined in Attack

Course In Organization and Tactics.

Lecture No. 9,

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Recent improvements in fire arms, both in rifles and artillery, have been proved, by recent wars to influence greatly the relative value of attack and defense. It is claimed by the majority of the authorities that all changes tend to favor the defense. There is no doubt that it is more difficult to carry out an attack to a successful ending than formerly, especially if it is conducted across the open and in broad daylight, and against well posted troops of good morale, armed with the modern rifle, and well trained in its use. Modder River, Stormberg, Colenso, Magersfontein, Spion Kop, the assault on Paardeberg, and many other engagements could be quoted to prove this. On the other hand, there are circumstances under which a deliberate attack may still be conducted with success. Some of these are:

. If the defense can be surprised, and close quarters 'can be attained, before they are aware of the presence of the assailants

Against a very inferior enemy, whether, in number, in quality, or in armament; which includes a limited supply of ammunition. (This may be local, such as pressing home an attack on one portion of the position, clearly ascertained to be weakly held.)

When the defenders are in a naturally bad position, that is, if there be cover to advance under, enabling the assailants to approach close to the position, or a place where he can rest in safety between forward rushes. Or if the ground be otherwise unfavorable to the defenders. Also if the defenders are in, such a position as to be clearly discernible, and not well protected.

If darkness, or the nature of the. country allows of an advance under cover, to close quarters. Attacking a force not entrenched, or behind very good natural cover, should also prove successful, if a large amount of rifle and artillery fire, and especially machine gun fire, can be brought to bear on the position. A steady shower of bullets and frequent bursting of shells make it practically impossible for the defenders to keep up that deadly fire, which prevents the at-o tack from succeeding. Against troops well entrenched however it is a different affair, and the English think that artillery preparation for infantry. attack against troops entrenched is but of little avail. If none of the above conditions prevail no attack should be attempted, except perhaps under the most desperate circumstances. But if it be ascertained that several of them do exist, the opportunity to attack should not be missed. Colonel Wagner states that there are three principal directions of attack, and he describes them as follows:

The Frontal Attack.-The frontal attack, or attack along the whole line, is the least skillful, and generally the least decisive mode of assailing the enemy. When he is covering his line of retreat such an attack merely drives him back towards his base and generally results, at best, in a barren victory. Still, frontal attacks may be necessary, when the 'enemy's flanks rest upon impassable obstacles, and it is impossible to maneuver him out of his position, or when a reconnaissance in force is necessary to develop the hostile position, or to seek out a weak point in an adversary's line, or when the line of battle of-the opponent is parallel to or coincident with his line of retreat. In the last case a frontal attack may push him entirely off his line of retreat, rupture his communications with his base, and result in his destruction. To be successful a frontal attack requires a greatly superior- force on the part of the assailant, for the prime requirement for success in battle, is a preponderating force at some point. In an attack all along the line, this condition is impossible, unless the assailant greatly outnumbers his adversary; and even then many of the advantages of the initiative, are abandoned.

Flank Attacks.-Frontal attacks being rarely decisive and generally impracticable, when the 'armies are nearly equal in size, some other method of overthrowing the enemy must be sought; and the one most often adopted is the combination of attacks on the front and flank. A flank attack must be combined with a front attack, of a more or less serious nature, in order that the enemy may not turn his main forces to meet the flank attack. The enemy must be held in front and if possible he should not discover the flank movement. The increased range and power 0f modern weapons has, in fact, led naturally to this form of attack, for every effort is being made to bring a converging fire upon the enemy, and, at the same time, to cause his fire to diverge, an extension of the line, and an attempt to overlap the enemy, are brought about naturally. Such a movement, which would formerly have been dangerous in the extreme, as tending to a fatal weakness of the line, is now rendered practicable by the enormously increased power of the local defense conferred by modern weapons and the use of hasty entrenchments, which enable the weakened portion to resist counter attacks. Unless the assailant has a great superiority of force, he can throw a preponderating weight upon the enemy's flanks only by reducing the strength opposed to the other portion of the hostile line. While acting aggressively with a reinforced portion, it is accordingly necessary to protect the other part from the assaults of the enemy, for it is not impossible that both commanders may form the same plan. The protection of the weakened part may be affected by refusing (or withholding) it, in which case it is protected by distance; by entrenching it and holding it on the defense; or by making feints with it, such as to deceive the enemy as to the real point of attack. The means to be adopted will depend upon circumstances, but generally speaking, the third

method is the best, as it keeps the enemy in. doubt as to the point upon which the brunt of the attack is to fall, whereas the other dispositions might betray to the enemy the plan of attack. Generally speaking, an attempt should never be made to attack simultaneously both flanks of an equal force, for in order to throw an overwhelming force upon both. flanks, the assailant must so weaken his center, as to expose it dangerously to a counter attack by the enemy. An illustration of this is afforded by the battle of Austerlitz, where the allies attempting to turn Napoleon's right, and at same time to drive back his left, found their own pierced and the battle hopelessly lost. A successful attack upon both flanks of an enemy implies, therefore, a great numerical superiority, or the occupation by the assailant's center of a position so strong as to be impregnable against counter assault. Thus at Dresden, Napoleon won his last great victory by attacking simultaneously, both flanks of an army whose numbers exceeded his own, but his center was so strongly posted as to be absolutely secure,

Piercing The Enemy's Front.—An attack which pierces the enemy's front is the most decisive of all, for it generally results in cutting off a portion of the (hostile army from its line of retreat, and causing either its surrender or its annihiliation. An attempt to pierce the enemy's front is, under modern conditions, generally hopeless, unless the enemy has himself invited it by an undue extension for the purpose of overlapping both flanks of the assailant; for the attacking force, being obliged to encounter the fire of the enemy's artillery masses from the moment of its first forward impulsion, and subjected to the concentrated fire of the infantry weapons, having at least five times the effective range of those 'of the Napoleonic era, would probably be annihilated before it could reach the hostile position. When the enemy's front is pierced, it, is necessary to support the penetrating force promptly, or the enemy will envelop it -in a counter attack by his reserves, or will establish a new line

in rear. Thus, at Gettysburg, Pickett's division actually succeeded in penetrating the union line; but the supporting troops having been repulsed, the assaulting column was overwhelmed and practically annihiliated.

POINTS OF ATTACK.

The direction of attack having been decided upon, the objective in attack must be determined. The English in South Africa found it was not easy to settle upon the objective. It was very rarely at the commencement of the attack that they knew within several hundred yards the exact position of the enemy, but the English method of reconnoitering was not good.

The enemy may be aligned across a given stretch of country, but as the attacking force approaches, the defenders may fall back and take up a succession of positions in rear; or he may occupy a series of small positions at varying distances, and often not in line parallel to that of the attack. The great object will be to gain by thorough reconnaissance and preliminary action the exact nature of the position before making the final disposition for the attack. In order that the assailant may make such preliminary attacks and at the same time have sufficient troops in hand to bring an overwhelming force to bear on the weak point of the line of the defense at the critical moment, a large reserve will be necessary. carrying out a general attack on a position, it is desirable to concentrate as much force as possible on what is considered the wkak point of the defence, and it must always be borne in mind that concentration of force practically means concentration of fire. Before passing to the general method of at tack, we will consider some of the considerations that determine the point of attack. The point upon which the main attack is to fall depends upon both strategical and tactical considerations. If the sole object of the attack is to win a victory and gain possession of the field, tactical considerations alone need be entertained; but if the object be to

gain the greatest result from the battle, strategical questions cannot be ignored in determining the points of attack. When the hostile army is connected with its base by one flank, the attack should fall on that flank, so that the enemy may be cut off from communication with his' base and thus deprived of supplies and succor. When the hostile army is connected by a flank with another army, a fortress, or any important strategic point, the attack should fall on the connecting flank, When the line of retreat lies obliquely in the rear of one wing, that wing should be the object of attack, in order that the enemy's escape may be cut off, to drive back the other flank would merely cause the enemy to assume a position perpendicular to his line of retreat, and thus rectify his position. When the attacking army is connected by a flank with an allied army, with its base, with a fortress, or any important strategic point, the attack should be made from, that flank, for this being the point to be especially guarded, the preponclerence of force necessary for an attack will naturally be found there. At Ligny, Blucher, being connected by means of his right with Wellington, reinforced that flank and attacked with it, thus guarding his communication with his ally while assailing the enemy. It is thus evident that stragetical considerations often enter with great force into the question of selecting the point of attack; but tactical considerations are, nevertheless, generally paramount, as the great object is, above all, to make sure of beating the enemy; for no victory can be so barren as to be unwelcome.

Tactical Considerations.-Among the tactical considerations influencing this important element of the plan of battle are the following:

The enemy's advanced posts must be captured, unless they are so far apart that the attack can be made between them, beyond the effective range of either; and this, owing to the range of modern weapons, is generally impossible, unless the advance posts are very few, or the hostile line very

long. When the advanced posts are strong- and supported by each other and the main position, their capture is imperative, in order that the attacking forces may not be caught between two flank fires while' subjected to a fire in front. When a strongly fortified post exists in a line of battle, the attack should fall upon points where the line can be more easily penetrated, and from which points the posts can be assailed from flank and rear. But when a fortified post or some natural feature in the enemy's line secures his line of retreat or commands the other parts of the field, it must be made the object of attack and captured as soon as possible, It is possible that the English lost the battle at the Tugela from failing to seize a hill that flanked and commanded the Boer's position, In the preliminary stage of an action any ground which will afford a good view of the enemy's dispositions should be seized whether it is of any-other value or not. If one is so situated that he can observe the movements of the enemy it is a great advantage, as this enaoles him to dispose of his reserves so as to meet any counter moves of the enemy.

COMBAT.

GENERAL CONSIDERATIONS.

object' and Phases of Combat.-The object of combat is to accomplish a definite purpose by force of arms, while frustrating the designs of the enemy. Combat will either be offensive or defensive, Decisive results can be obtained only by the offensive. The passive defensive at best only parries the enemy's blows for a time; sooner or later an unprotected spot will be touched, resulting in defeat. The defensive should therefore only be adopted temporarily or locally with a view to the assumption of the offensive.

Engagements are usually preceded by operations, the

object of which is to locate the enemy without committing the main body to action; these preliminaries begin with the action of independent cavalry and culminate in the contact of the advance guards.

An engagement generally presents three distinct phases, namely the preparatory stage, the decisive action, and the completion. The corresponding distribution of troops should be such as to carry out the following general plan:

- (a) To engage the enemy, wherever he may appear, with the troops necessary to stop him, to hold to his position, to inflict loss and cause him to call up reserves, at the same time leaving him in doubt as to the point where the decisive blow is to fall.
- (b) To withhold a large part of the available forces for a powerful effort at the decisive point.
- (c) To maintain a reserve, screened from the enemy's view and protected from loss, to take part in a vigorous-pursuit in case of success or to prevent disaster in case of failure.

These phases will not always be fully developed. The preparatory stage may be brief and be followed at once by the decisive attack, sometimes the enemy may be surprised by a flank attack, or inferior numbers may be overwhelmed before support can reach them. In general, however, when large forces face each other ready for battle, the engagement will take the course indicated.

The mass of an army consists of infantry. Its condition is the decisive factor in the efficiency of a force of all arms. Upon the infantry falls the brunt of the fighting and the principal hardships of a campaign; its action decides the great battles.

Artillery is a powerful and indispensable assistant to both infantry and cavalry. It generally opens the battle, prepares the way for both partial and decisive attacks of the other arms, and is active during the struggle and at its close. 'Though incapable of independent action, it provides more protection than it receives, In battle it furnishes support and a rallying point to the other arms and may facilitate their advance by destroying material obstacles at a distance.

Its strength should be about one-sixth of the entire force, furnishing from four to six guns per thousand men of the other arms,

Cavalry is a highly mobile, reconnoitering, and fighting element of the army. It explores far in advance and reconnoiters' in the immediate vicinity of a command; its action protects the other arms against surprise. It fights not only the enemy's cavalry, but on proper occasions, be it mounted or dismounted, also his infantry and artillery; it seizes and holds important points, and rapidly reinforces weak parts of 'the line of battle; it may operate against the enemy's communications or execute extensive raids in his territory; and it is of special value in reaping the fruits of victory by a tireless pursuit, and in bringing the enemy's retreating forces to bay; or in limiting the consequences of defeat, by stubborn resistance at successive rapidly occupied positions, and if necessary by sacrificial charges.

The strength of cavalry varies greatly with the nature of the theatre of operations and other conditions; generally, it forms about one-sixth of the army in the field.

FIRE,

The losses, which troops inflict in battle are produced almost entirely by the use of fire arms. The efficacy of the fire depends upon its accuracy, its direction with reference to the objective, and its volume. Accuracy can be obtained by the troops of modern armies only through a course of instruction in the use of the weapon and in fire discipline.

On the offensive, correct use of ground by commanders and skillful use of cover by the men are' indispensable. But

in all cases, whether on the offensive or defensive, the best protection is afforded by 'an accurate and powerful fire on the enemy.

As the conditions are never the same, no fixed rules for the attainment of superiority of fire can be laid down. Even the formations prescribed in drill regulations for the advance of troops on the enemy, or for the occupation of a position, will have to be modified according to circumstances.

In view of the accuracy and power of modern small arms and quick-firing artillery, it is certain that an advance against even an inferior force has but small prospect of success without the preparation and assistance of superior fire.

ADVANTAGE OF THE OFFENSIVE.

The commander of the force on the offensive has the great advantage of the initiative; that is, he takes the lead, while the defender must follow suit. He has a specific object, whereas the defender has only the general object of repelling the aclversary. He can make feigned against various parts of the enemy's position, or merely occupy him all along the line, while massing superior forces against a single point. The defender, on the other hand must meet the decisive attack wherever it may fall. assailants have the confidence of their numercial and moral superiority. When the die is cast and the attack is on they no longer meditate on the consequences, they look forward, not backward. The defenders, shaken by superiority of fire and seeing the steady advance of overwhelming numbers, realize the effect of impending contact, of resulting enfilade or reserve fire, and seldom wait for the final rush. The defender's whole line generally gives away as soon as it is turned or penetrated.

Frontal attacks are not impossible, but in order to be successful the assailant must gain superiority, and be willing to pay the price of victory.

In order to avoid heavy loss it will be necessary to resort to thin lines of skirmishes, on the other hand, a sufficiently heavy fire can only be secured by placing as many rifles as possible in the firing line.

It is therefore evident that all parts of the front where serious attack is not intended, thin lines of skirmishers well supplied. with ammunition should be employed, but that in the decisive attack heavy lines and large expenditure of ammunition are necessary.

'Nearly all of the factors which make the frontal attack difficult inure to the advantage of the offensive in enveloping and flanking attacks, for example, the longer the range of weapons the greater the power of convergence of fire on salients of the enemy's line. And the neutral color of uniform which hides the firer on the defensive, at the same time favors the offensive in concealing turning movements.

While the advance in small arms has benefitted the defensive, improvement of field artillery has increased the advantages of the offensive, whether in frontal or flank attack. The great range of field artillery enables the assailant to accumulate a crushing superiority at the desired point without being discovered by the defender, to open an accurate and overwhelming fire as a surprise, and thus to acquire an ascendency which becomes more pronounced as the power of the arm increases.

It is not possible to shoot an enemy out of a position. In order to avoid serious losses the defender only has to lie down behind cover. But a resolute and simultaneous 'advance on both the front and flank of a position, made after thorough preparation by, and with the effective accompaniment of, artillery and infantry fire, will in the future, as it has been in the past, generally be successful.

The degree of dispersion necessary- to avoid heavy loss makes control 'of the skirmish line difficult; hence the great importance of individual intelligence and courage, and of skill in shooting and taking cover. In the final assault great moral stamina is indispensable.

THE ATTACK ON A POSITION.

The Plan of Attack.-When political or strategical considerations or the orders of the higher authority, or local circumstances require the assumption of the tactical offensive, the first duty of the commander is to obtain reliable information as to the numbers and position of the enemy. He will then endeavor to ascertain the weak points of the enemy's position and will carefully note the places from which a concentrated fire may be brought to bear upon them. Partial engagements will often be necessary in order to gain possession of intermediate points from which operation against the enemy's position may be initiated.

The commander finally decides on his general plan of battle and communicates it to the troops in field orders. At times the most suitable point for the decisive blow in not ascertained until after much fighting in the preparatory stage. With a large reserve in a central position under cover, advanatge can be taken of the development of the action.

In his orders for the attack the commander in chief will state the position and the probable designs of the enemy, and his own intentions, as far as developed. The commanders of the large units will be assigned to sections in which to operate, and objectives will be indicated to them. The time when operations are to begin, and the positions of field hospitals, the trains, the commander in chief, will also be stated, also the strength and position of the main reserve.

The special instructions sent to each commander should indicate clearly what is expected of him and whether assistance in emergencies will be available or not.

The general plan should be kept secret till the time for action is near, but should then be disseminated rapidly throughout the command. As an example of an order of attack, I have taken that given by Griepenkerl. I think it is practically the same as will be given in the field service regulations, except possibly the heading and I have made the change that I think will be made.

Field orders, HEADQUARTERS 1" ARMY CORPS, NUMBER 1. FORT LEAVENWORTH, KANSAS, 8 November, "04. 6:00 p. m.

- r. Information of the enemy (in detail) and as to our other forces.
- 2. Intention of the corps commander, (generally a brief statement as to which flank of the enemy is to be attacked). An order for the role of the advance guard as such, to come to an encl.
- 3. Order for the artillery, first position ; first target; (as a rule the enemy's artillery) .
- 4. Order for the infantry. Stating in general terms how the secondary attack is to be carried out, in rather more precise terms the route by which the troops, destined to carry out the main attack, and where more than one battalion is concerned the main attack.
- 5. Order for the general reserve: The troops to compose it, and what it is to do.
- 6. Order for the cavalry; (protection of one flank by the greater part of it, patrols being sent to the other flank.
- 7. Orclor for the detachment reserve S. A. A. carts, (in clifficult ground, officers commanding brigades will give special direction as to their ammunition carts-the infantry brigade reserve ammunition. Position of dressing sta-

tion of bearer company, only when both can be known before hand.

- 8. Order for the baggage.
- 9. Position of officer commanding (usually near the first artillery position) .

Copies to Division Commanders and Corps Officers. By command of,
LIEUT. GENL. B.
Chief of Staff.

The commander should, if practicable, in addition to furnishing all commanders a copy of his order, get all his staff and higher commanders together and give them instructions verbally, explaining to them what he expects each to achieve, what the general object is. It is best to assemble them on some commanding point, where the general lay of the country can be seen, and here point out to them what part of the ground each is to cover. The subordinate commanders will be in better position to carry out, intelligibly, such plans as circumstances may demand, to achieve the object in view. It is well to state in this connection that the commander of the large command has very few arrangements to make, as he must above all things endeavor to retain a general supervision over his whole force. Any attempt on his part to arrange too many details or to interfere everywhere with his orders, would dissipate his energies cause him to lose the power of supervision. Besides there is nothing to be gained by his personal interference, for he would be taking over functions intended for his subordinates: while his own, for which he needs his undivided attention, would suffer. For this reason a commander should reflect with due deliberation over his first orders for tack, for as a rule there is no great cause for undue haste.

When however, the orders have been given, the subordinate officers must be left a free hand to perform the tasks imposed upon them. The supreme commander contents himself with seeing that his orders are carried out; taking care to see that the general deployment is properly made.

The position of the commander is given as near the Ist artillery position the apparent reasons for this are, that at this point he can gain a better view of the country, as the artillery generally occupies the highest points commanding the enemy's position, and it will be central.

Some people, the Russians for example, seem to think it is the duty of the commander to expose himself more or less, while the Japanese take the opposite view. There is something to be said for both sicles-in a country where so much depends upon the use of raw troops as the U. S. for example, it will be well to show yourself occasionally. In the recent maneuvers it was noticable that the 2nd. division showed superior marching qualifications and enthusiasm, clue no doubt, to their commander being seen so often. On the other hand if the general does not have a place where he may be found, he cannot do his full duty. He will miss many valuable reports and lose control of his forces and there will be no concerted action. He will interfere with the subordinates, if too near, and in consequence there may arise friction and all this will add to the lack of cooperation.

Another serious objection, is the chief commander's losing his life and he should consider the effect his loss will have. A new commander will have to get the lay of the land before he will be able to proceed with the plans, or possibly will change the plans. All in all, I think the Japanese method is the best. A general, can allow himself to be seen during an intermission, but while an attack is in progress he should not take **up such** a position, where he will be affected too greatly by local conditions.

General Grant made use of staff officers to keep him informed of the actions of his divisions. In the extended order of the fighting of the day, it will be more necessary than ever before for the commander to have his representatives at all points of the field. He must trust his subordinate commanders more, and in order that they may act intelligibly, the commancler must be sure that his plans are well understood, so that all may work to achieve the common encl. There may be a time when the army commancler may have under him a commander who will not be capable of carrying out properly the plan entrusted to him; in this case a reliable staff officer well posted on the commander's plans might be sent with such commander, so that in case of an emergency he could give such instructions in the name of the commander, as would insure the proper action being taken to carry out the general plan. One can readily see how important- it is to have. a military eclucation, because a commander will give the opportunities to those whom he can trust, and one must be prepared to fill the opportunities. It is readily seen that the responsibility of such an officer is not to be assumed lightly.

The Preparatory Stag-e.-After the advance guard has come upon that of the enemy, or upon the advance detachments covering his front, his main position still remains to be determined. The enemy's precautions may be such that serious attacks, capturing detached positions and salients, and pushing back his advance troops,, may be necessary before the main line of his clefence stands revealed. The attacking troops will entrench themselves, if practicable, after each gain of ground to the front, and finally face the enemy in his principal position at sufficiently close range and in ample force to hold him there.

The combat of the preparatory stage may thus last for hours; in great battles it may even extend through several days, with continually increasing demands upon the troops.

The commanders of the large units to whom sections- of the front and intermediate objectives have been assigned, should be allowed to retain freedom of action and initiative in order to be able to take advantage of the opportunities to make progress towards the enemy, which should be their constant endeavor. As a rule they can not count on receiving assistance.

The commander in chief may send in reinforcements at points of the line considered important, or he may withdraw local reserves and at indicated points assume a defensive attitude, simply holding on to captured ground. As the opposing infantry forces come in contact, the cavalry transfers its activity to the flanks. It continues to observe the enemy, maintains communication, keeps off the enemy's cavalry, and menaces his flanks, ready to take rapid advantages of opportunities for action. A large portion of the independent cavalry will be held in reserve in a central position from which it can rapidly reinforce threatened parts of the line. The artillery will enter into action as soon as possible; its principal efforts will be directed toward obtaining the mastery over the enemy's artillery.

The infantry will work its way from one point of support to another, which should prepare these partialnoinp port to another toward the objectives assigned. It will be assisted by the artillery which should prepare these partial attacks. and cooperate. in their execution. The duties of the infantry are severe. It is necessary to inflict losses on the enemy, force him to send in his reserves, and hold him in his position, and to repel counter attacks. He should be held so closely by fire action that it will be impossible for him to change his formation to meet an attack on his flank or rear.

The Decisive Action During the fighting of the preparatory stage the commander in chief, with the reserve, will have approached the point where the decisive action is to take place. The selection of this point will generally be determined_ by considering the weak pdints developed during the preparatory stage, the places where large forces, especially of artillery, can be assembled under cove?, and the position of the large reserves.

The body of troops which is to deliver the decisive stroke should be in full vigor 'at the time of the conflict and should come upon the enemy as a surprise. Hence its approach, should be so conducted as to escape observation until it reaches the cover nearest the enemy; from this point it will, at the opportune moment, move forward in -the decisive attack.

The selection of this moment is the surpreme duty of the commander in, chief. If the attack is made too soon it may fail through lack of preparation; if delayed too long the enemy's reserves may have reinforced the position, and the' tide of defeat may have set in. In any case the decisive attack must be prepared by a powerful fire, Concentrated on the objective. By all the artillery and infantry in range, and the attacks at other points being renewed at the same time, with increased vigor. By fire action alone will the assailant be able to keep the defenders down, so that they will not be able to bring that accurate and intense fire that renders the attack so difficult.

This preparation by fire consists in the infliction of such losses that the defenders morale will be seriously impaired and the efficacy of his fire materially depreciated.

A combination of the action of infantry and of artillery is necessary when the enemy is well entrenched; advancing infantry- to force him to open, fire from his positions, consequently to expose himself-; 'artillery and infantry fire to inflict' loss during such advance.

Under the protection of this fire, the troops engaged in the attack begin their final advance, with the firm determination of charging home. As they approach the enemy's position all the defenders will show themselves for the purpose of firing. This is the time for the artillery with ranges accurately determined, to redouble its activity, firing over its own infantry, if necessary.

One reinforcement after another is now sent forward at the decisive point, not only replacing losses, but each by its arrival pushing the firing line nearer to the enemy's position. As the attack pragresses part of the artillery will advance to new positions and open fire at close range on the position, or on the enemy's reserves coming up. The maximum intensity of fire must be employed when the attacking troops are temporarily stopped by obstacles within effective range of the defenders, whose fire must be kept down at all hazards.

When the infantry has advanced near enough to the position to be able to reach it in one more dash it opens a rapid fire, and then, with bayonets fixed, rushes the position. The next line in rear joins in the charge, adding to its impetus and furnishing the numbers to decide a possible hand to hand conflict. A third line, retaining its formation, is hurried up to occupy the position and repel a counter charge.

Artillery should advance with the utmost dispatch as soon as the position is carried, so as to be available to fire at the enemy's artillery covering the retreat, or to assist in repelling an offensive return.

While the decisive action is in progress the troops at other parts of the general line make vigorous attacks, except such as have orders to act as a containing force. Thus, if the principal attack should fail, success may still be achieved at other points.

When the attack is made so as to envelop one of the enemy's flanks, a portion of the cavalry should protect the

outer flank of the infantry, drive off the enemy's cavalry, and 'operate against the flank and rear of the position. The cavalry reserve is held in rear of the general line, but near enough to the flank to reinforce the cavalry engaged, or to be launched promptly in the pursuit.

For a sustained effort in the decisive action the troops must be so arranged, that reserve after reserve can be pushed to the front. As long as there is a chance of success the commander in chief should not hesitate to utilize his last available man for a final effort. As soon as a position has been carried steps should be taken to hold it against possible counter attacks. The troops disorganized by the assault should be reinforced without delay. Strong points will be occupied, all available cover being utilized and hastily improved; shelter trenches will be constructed, if practicable, and a portion of the forces will establish itself in a temporary defensive attitude as, quickly and as strongly as possible. The course of events will soon indicate whether the enemy has definitely abandoned the position or not. As long as there is 'danger of an offensive return, strengthening of the position should be continued.

The *Pursuit*.-No victory is complete without a resolute effort to reap its fruits to the fullest extent possible. The retreat of the enemy's forces in disorder will probably furnish excellent targets for the infantry and artillery fire. While the 'enemy is thus being pursued by fire, the cavalry and horse artillery hasten to overtake him and endeavor to convert the defeat into a rout,, by resolute charges and by destructive fire at short range. All available troops should take up the pursuit. The portion of the reserve not engaged and other fresh troops already formed are to be preferred; but previous losses and exertions should not be accepted as an excuse for neglecting to make the' utmost efforts to remain in contact with the enemy, to keep him going, and to give him no. time to recover from disorder, to take up a fresh position, or to form a rear guard.

The Cavalry Should Act With Great Boldness.—If the nature of the country or other reasons make the charge impracticable, they should endeavor to intercept the retreat, by opening fire with rifles and guns of accompanying horse artillery, at effective range from a position on the flank. This will necessitate deployment by the enemy, cause delay, and thus gain time for the pursuing infantry and artillery to get into action. Cavalry leaders will act on their own initiative and endeavor by all means in their power to make the best of the victory. In any case, touch with the enemy must not be lost.

Repulse—In case the assailants fail to reach their goal, whether on account of obstacles or the defenders fire, or a combination of the two, immediate withdrawal to the nearest cover will be generally necessary. This should be effected by alternate sections, the withdrawal of a part being covered by the fire of the remainder. On account of the inevitable disorder, the losses in recrossing the fire swept zone will often be greater than in the assault. The position of the assailants, close to the enemy's position may be such that it will be preferable to wait for the cover of darkness, provided the enemy does not make a counter attack. rival of reinforcements or the course of events in parts of the field may decide the commander to repeat the assault; the ground then still held may serve as a starting point, for renewed efforts. If the enemy assumes the offensive and begins pursuit, infantry units still intact and a portion of the artillery should occupy defensive positions behind which the defeated troops can rally and reorganize. The enemy will be held in check by a vigorous fire sweeping his lines of advance. At critical moments cavalry will delay the enemy by charges, and the artillery will continue its fire up to the last moment, regardless of the risk of losing guns. The paramount object is to gain time for the infantry to recover its organization.

Conclusion.-From what I learned in studying the various authors, one of the greatest battles we all have to make, will be with outrselves. We will have to overcome our personal prejudices, and realize that all arms are indispensable, and in order that we may get concerted action; harmony must be maintained, To do this we must treat all fairly and justly; this we can not do if we assume the average officer of the branch of the service in which one is brought: up in, is better than the average of any other branch. If one reaches the state where he can prove this to the satisfaction of his own mind, I think he is incapable of being a fair judge and he will therefore never deal with his subordinates fairly and impartially.

INFANTRY AND CAVALRY SCHOOL,

DEPARTMENT MILITARY ART.

Question Sheet No. 9.
ORGANIZATION AND TACTICS.

The Three Arms Combined in Attack. Nov., 1904.

- 1. State the circumstances under which a deliberate attack against an enemy may still be conducted with success.
 - 2. What are the three principal directions of attack?
- 3. What is the frontal attack, why is it generally undesirable, under what circumstances may it be necessary, and to be successful a frontal attack requires what?
- 4. 'What is meant by "Flank Attacks," and what combination of attacks is generally adopted?
- 5. What effect have modern arms and shelter trenches on the combination of front and flank attack?
- 6. How may the protection of the weakened part of the line be affected in making a combined flank and frontal attack, and which method is considered the best, why?

- 7. Generally speaking, should an attempt be made to attack simultaneously both flanks of an equal force? Why?
 - 8. A successful attack on both flanks implies what?
- 9. If successful, which is the most decisive mode of attack? State why it is the most decisive of all, and why it is more difficult to carry out such an atack now.
- 'When the enemy's front is pierced, what is it necessary to do?
- II. What is meant by the point of attack, what is to be determined before making the final d&position for the attack, and how is this determined?
- 12. The point upon which the main attack is to fall depends upon what two classes of considerations, which is generally paramount?
- 13. What are the principal strategical considerations that govern the choosing of the point of attack?
- 14. What are the principal tactical considerations that govern the choosing of the point of attack?
- 15. In the preliminary stage of the action what should be done about any point that affords a good view of the enemy's position, why?
- 16. Engagements are usually preceded by what operations, state what are their object, and how they generally begin and culminate.
- 17. An engagement generally presents what three phases?
- 18. The corresponding distribution of troops should be what, 'to carry out this general plan?
- 19. The mass of an army consists of what arm, state briefly what can be said as to its importance?
- 20. State briefly the importance of artillery as an assistant to cavalry and infantry, and its proportionate strength?

- 21. State briefly the uses of cavalry in connection with the other two arms, and its proportionate strength.
- 22. What advantages has the commander, who acts on the offensive?
- 23. What method of attack with, the three arms will generally prove successful?
- 24. What is the duty of the commander during the action, and what must be left to his subordinate commanders?
- 25. What are some of the considerations that control the position of the commander in chief?
- 26. In the extended order of fighting of the day, what method will the commander have to resort to in order that he may receive prompt reports from all parts of the field, and also insure the proper handling of the troops?
- 27. For the decisive action, the consideration of what generally determines the points of attack?
- 28. State briefly how the body of troops are moved, that is to make the decisive attack. Who selects the moment for this attack?
- 29. State why the selection of this moment is so important, and what kind of action is most important.
- 30. How should the infantry and artillery be used in this phase of the attack?
- 31. What use is made of the cavalry at this phase of the action, and in case the enemy is defeated what use is made of the cavalry?
- 32. For a sustained effort in the decisive action, how must the troops be arranged and what should be the proper use of the reserve?
- 33. As soon as a position has been carried what steps should be taken?
- 34. No victory is complete, without what efforts being made?

- 35. What arms of the service are especially adaptable for the pursuit?
- 36. Describe briefly the proper use of Horse Artillery and cavalry in the pursuit.
- 37. In case the assailants fail to reach their goal, describe the manner of withdrawal. Why may it be necessary to await darkness, and what other advantages are there in holding on to a position instead of retreating?

R. FOSTER WALTON,

Captain 6th Infantry.

Dec. 6, 1904.

"Whatever arguments may be drawn from particular examples, superficially viewed, a thorough examination of the subject will evince that the art of war is both comprehensive and complicated; that it demands much previous study, and that the possession of it in its most approved and perfect state is always of great moment to the security of a nation?

WASHINGTON'S LAST ANNUAL MESSAGE.